

Four principal classes of organic compounds.

Carbohydrates

Lipids

Proteins

Nucleic acids

Sep 12 - 1:42 PM

Where can you find carbohydrates?

corn

potatoes

bread

Crackers
pasta

muffins

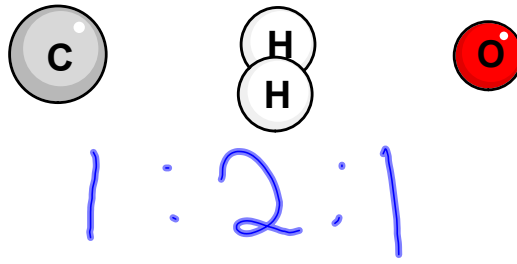
rice
cereal

fruits

f.v.g

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What is this ratio?

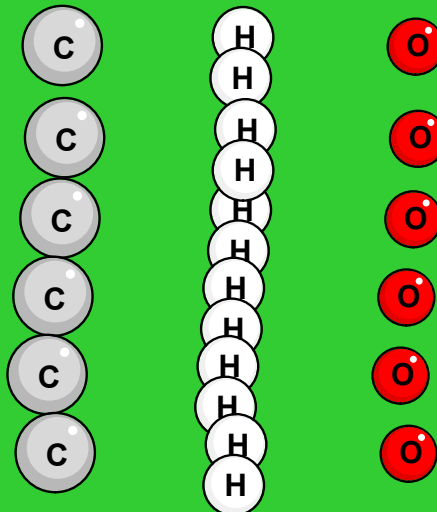


1 : 2 : 1

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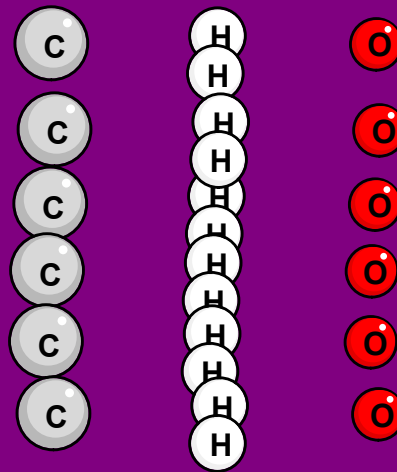
Single sugars are the building block of carbohydrates.

**Examples:
Glucose
Fructose**



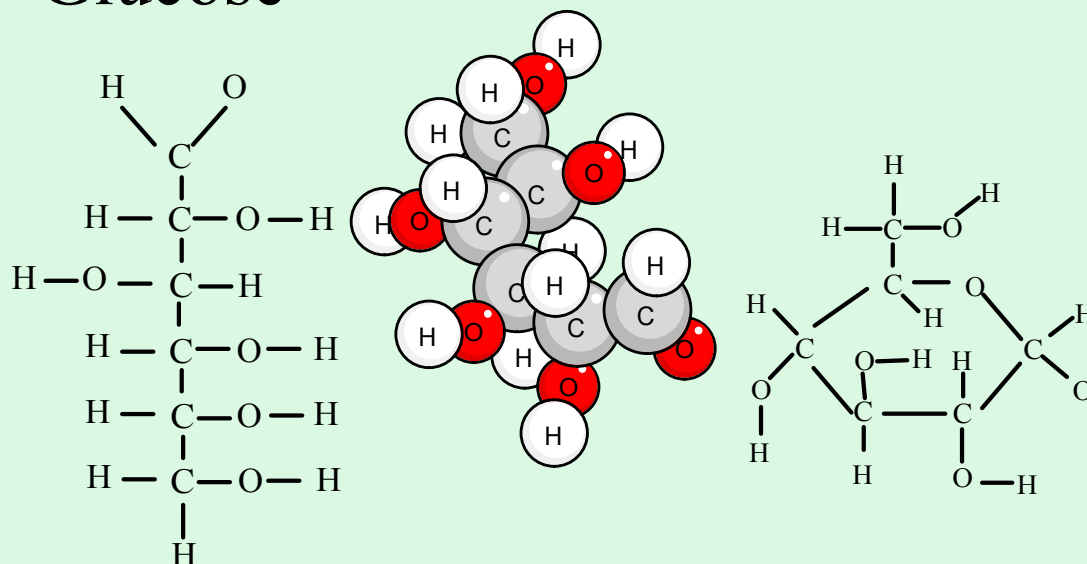
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Single sugars are also known as monosaccharides.



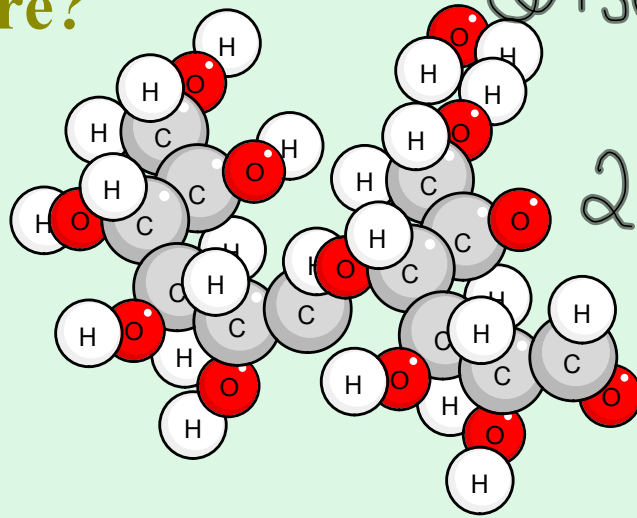
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Glucose



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What do you notice about this picture?

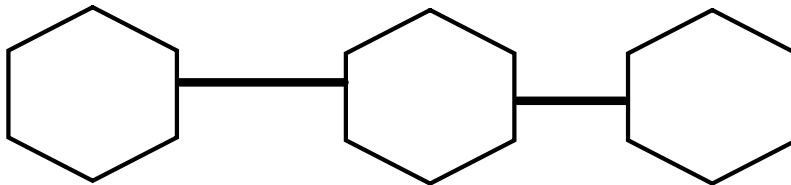
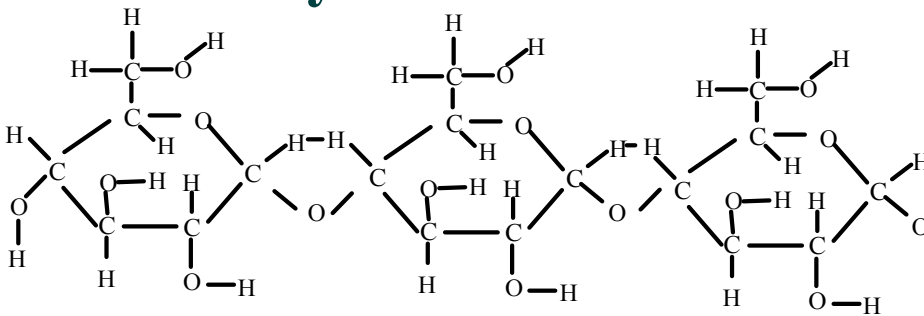


Disaccharide
=
2 sugars

Maltose

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Polysaccharide



<http://www.mansfield.ohio-state.edu/~sabedon/biol1025.htm>



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Lipids are non-polar molecules that are not soluble in water.

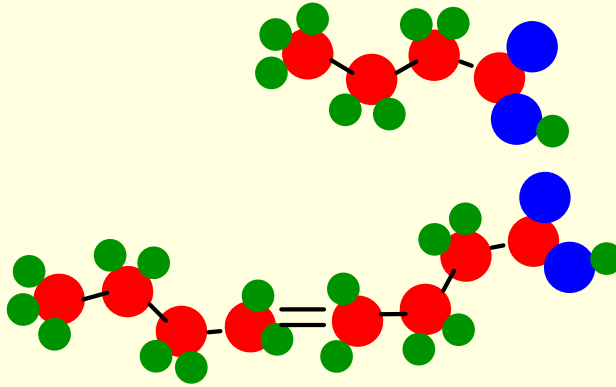
**Examples:
Fats
Phospholipids
Cholesterol
Chlorophyll**

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**Fats- lipids
that store
energy**

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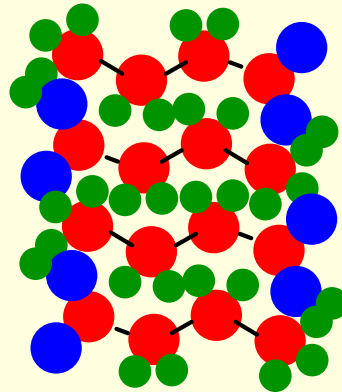
What is the difference?



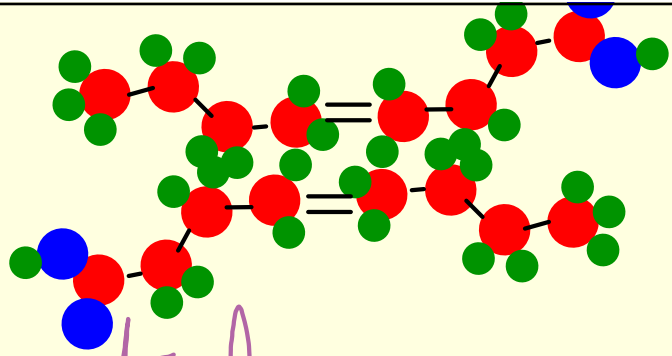
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*Saturated
Fats*

**Solid at room
temp like
butter, lard,
grease.**



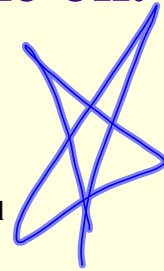
Saturated fats



Unsaturated
Fats

**Liquid at room
temp like oil.**

http://www.supplementquality.com/news/fatty_acid_structure.html

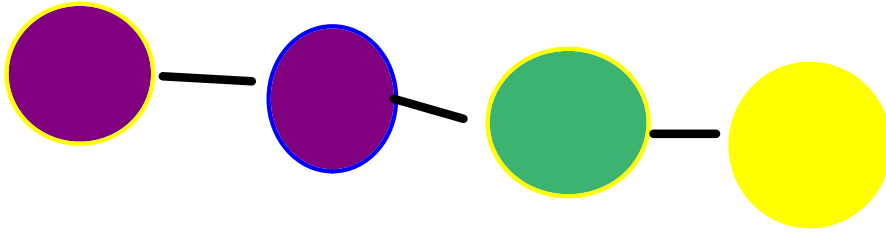


Unsaturated fats

**Proteins- a chain of
amino acids**

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Amino acids- building blocks of proteins

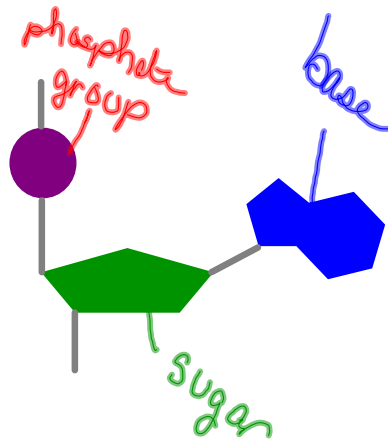


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**Proteins are
found in
ligaments,
tendons, hair,
bones, muscles.**

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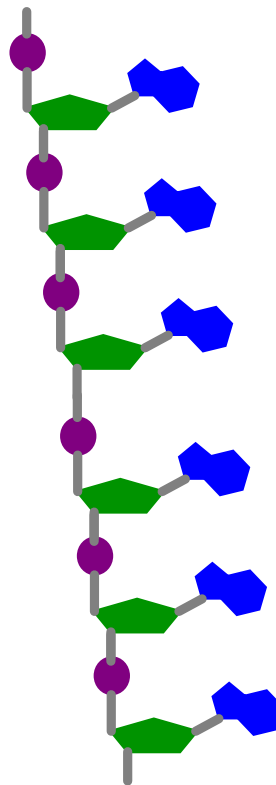
Nucleotide-
three parts a
sugar, a base,
and a
phosphate
group



- DNA
- ATP

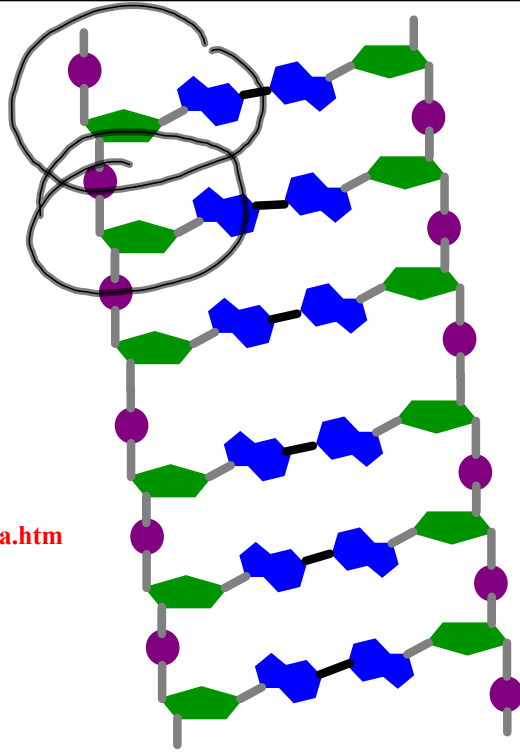
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Nucleic acid



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DNA



<http://biology.clc.uc.edu/courses/bio104/dna.htm>